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EXAMINER	
THERIAULT, STEVEN B	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/648,625	AITA ET AL.	
	Examiner	Art Unit	
	Steven B. Theriault	2179	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 August 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This action is responsive to the following communications: RCE filed 08/29/2007

2. Claims 1 -21 are pending in the case. Claims 1 and 6 are the independent claims.

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 08/29/2007 has been entered.

Claim Rejections - 35 USC § 102

3. **The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:**

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. **Claims 1-3, 5 are rejected under 35 U.S.C. 102(e) as being anticipated by Pugaczewski et al. (hereinafter Pugaczewski) U.S. Patent No. 6,903,755 issued June 7, 2005 and filed Dec. 21, 1999.**

In regard to **Independent claim 1,** Pugaczewski teaches a method for provisioning a circuit via a plurality of network elements comprising:

- Graphically representing said network elements within a network (see Figures 20-29 and column 4, lines 5-67) Pugaczewski expressly shows a graphical representation of a network of elements.
- Graphically representing a communications link between two network elements as a bridge object disposed between two of said plurality of network element objects (See column 2, lines 35-41 and column 20, lines 40-47). Pugaczewski expressly shows a graphical representation of a cross connect where links are made between nodes on different networks.
- Graphically representing the status of cross-connection links within said network elements as an icon displayed on each of said linked network element objects wherein said network element objects and bridge objects may be manipulated by the user to form a graphical representation of the circuit being provisioned (See column 20, lines 5-67 and column 22, lines 8-25). Pugaczewski expressly shows icons of interconnected elements along with the color status of the provisioning of objects. The user can add a line or drop a line or connection between objects in the interface, which is a provisioning function.

With respect to **dependent claim 2,** Pugaczewski teaches a method wherein the icon is selected from the group consisting of a set of colors, a set of images, shapes symbols objects (See column 20, lines 9-59). Pugaczewski shows colors and images on the icons as shown in figure 23 along with a given shape for the node.

With respect to **dependent claim 3,** Pugaczewski teaches the method wherein the icon (See column 20, lines 19-47). Pugaczewski teaches a connection status is shown to the user in colors. Red is equivalent to unsuccessful connection and green is successful.

With respect to **dependent claim 5,** Pugaczewski teaches the method wherein each bridge object has at least one communications link each communications link comprising

at least one channel for establishing a communication path between two of the plurality of network elements (See column 20, lines 49-57) where each link has a specific channel identifier and port. Each element in the window shows the cross connect information of each element.

Claim Rejections - 35 USC § 103

5. **The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:**

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. **Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pugaczewski et al. (hereinafter Pugaczewski) U.S. Patent No. 6,903,755 issued June 7, 2005 and filed Dec. 21, 1999, in view of Mayo et al. (hereinafter Mayo) U.S. Patent No. 5,751,965 issued May 12, 1998.**

With respect to **dependent claim 4,** as indicated in the above discussion, Pugaczewski teaches every element of claim 3.

Pugaczewski teaches the icons have a set of colors that represent states red, green yellow etc (see so, lines 5-67).

Pugaczewski teaches does not specifically mention a set of colors consist of a list of seven colors. However, in the same field of endeavor, Mayo et al. teaches a network management system that allows connections to be displayed in various colors. The colors indication the connection status and has list of seven colors (see e.g., Fig. 6 and col. 7, lines 45-50). Mayo and Pugaczewski are analogous art because they both provide for displaying network information in a format that the user is easily able to discern the network connections and configurations from the graphical constructs in the display.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, having the teachings of Mayo and Pugaczewski in front of them, to modify the system of Pugaczewski, which already displays three colors, to incorporate a larger set of colors for the purposes of each color corresponding to a particular connection state and cross-connection state within each network element. The motivation to combine Mayo with Pugaczewski comes from the suggestion in Mayo that network connections can be displayed as relationships on the display and the relationship icon has a color indicating the condition of the connection where different colors provides an advantage to the user (See column 7, lines 37-50).

7. **Claims 6-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dev et al. (Patent No. 5,559,955) in view of Tonelli et al. (Patent No. 5,831,610).**

As to **independent claim 6**, Dev et al. teaches:

A graphical user interface (GUI) (user interface 10 – see e.g., col. 3, lines 52 – 54), comprising: a plurality of network element objects (see e.g., Fig. 8A and col. 5, lines 29 – 31; i.e., the plurality of network elements include bridges, routers, hubs, and cables), each network element object representing a respective element within a network (see e.g., Fig. 8A and col. 13, lines 17 – 20; i.e., local area networks and subnetworks are graphically represented) and having a status icon associated with the network element

object (see e.g., col. 14, lines 56 – 58; i.e., background area 414 represents the status of the network device); a plurality of bridge objects (interconnections 346 – see e.g., Fig. 8B), representing a respective communications channel within the network (see e.g., col. 13, lines 28 – 31; i.e., interconnections 346 represent communication channels between network devices within a network); wherein: in response to a user selection of a network element object (see e.g., col. 4, lines 30 – 40; i.e., user interface 10 is user configurable, wherein the user is able to add new types of network devices by changing the view module), the network element corresponding to the selected network object is selected for use in a circuit (see e.g., col. 5, lines 29 – 31; provisioning a circuit board corresponds to Fig. 8A representing circuit boards, printed circuit board racks, bridges, routers, hubs, and cables); and its corresponding status icon displays information as to the status of a communications channel between the network element and a second network element (see e.g., Fig. 4B and col. 14, lines 56 – 58; i.e., the status of a network device is represented by different colors depicted by background area 414, wherein each background area 414 corresponds to an individual network device). In summary, Dev teaches displaying to the user a network configuration and allowing the user to change the view, which allows for adding (provisioning) a device to the network.

Dev does not expressly teach:

- In response to the user selecting the network element object the network element is selected for provisioning the circuit

Dev does teach a process of adding a device to a network when the user decides to change the view module (See column 4, lines 30-40). But Dev does not state the user selects the element to provision the circuit or add the element to the circuit. Tonelli teaches a process of allowing a user to provision a network circuit by allowing the user to configure, add and modify a network connection (See column 9, lines 1-67 and column 17, lines 5-20) by selecting the graphical object (See also Figures 34, 38-42). Dev and Tonelli are both network management interfaces. The both provide

a status indicator of a given device, provide for displaying network topology and allow the user to interact with the network infrastructure.

Accordingly, it would have been obvious to one of ordinary skill in the art at the time of the invention, having the teachings of Tonelli and Dev in front of them, to modify the system of Dev to incorporate the ability of the user to select the network element directly to provide provisioning of the specific network element. The motivation to combine Tonelli with Dev comes from the suggestion in Tonelli to provide to the user a network intelligence into how the devices on the network are configured and prompting the user through the appropriate steps to make a valid network connection during the process of adding a network device and icon to the system (See column 2, lines 20-40). Further, a time saving step can be realized by maintaining a database of device objects that can be added when configuring new networks by allowing the user to select the given object when adding it to the network (See column 2, lines 40-67).

As to **dependent claim 7**, Dev et al. teaches:

The GUI of claim 6, wherein each bridge object (see e.g., Fig. 8B and col. 13, lines 30 – 31; i.e., the bridge object corresponds to interconnection 346, wherein interconnection 346 is used to connect device icons) further comprises at least one communications link object (see e.g., Fig. 8B; i.e., multifunction icons 340, 342, and 344 have at least one communications link, wherein the communication link corresponds to interconnection 346), each communications link object comprising at least one channel object, each channel object representing the communication channel (see e.g., Fig. 8B; i.e., multifunction icon 344 comprises at least one channel, such as interconnection 346, for establishing a communication path between multifunction icon 342 and a "Hardware/Firmware Development Group" multifunction icon).

As to **dependent claim 8**, Dev et al. teaches:

The GUI of claim 6, wherein the status icon (see e.g., Fig. 9 and see e.g., col. 14, lines 56 – 58; i.e., background area 414 of network device represents the status of the network device) is selected from the group (see e.g., Fig. 8A and col. 14, lines 32 – 37; i.e., the user is able to click on an icon, such as administration network icon 330, engineering network icon 332 and internet icon 334, from the group of icons) consisting of colors (see e.g., Fig. 9 and col. 14, lines 56 – 59; i.e., background area 414 can be represented in different colors, wherein the color is associated with the status of the network), shapes (see e.g., Fig. 9), symbols (see e.g., Fig. 9 and col. 14, lines 62 – 67; i.e., bar graph 406 and 408 are symbols representing performance information of the network device), objects (see e.g., Fig. 9) and text (see e.g., Fig. 9 and col. 14, line 52; i.e., area 402 is a text area for the device name).

As to **dependent claim 9**, Dev et al. teaches:

The GUI of claim 8, wherein the colors represent the status of a communications channel (see e.g., col. 14, lines 56 – 57; i.e., background area 414 represents the status of the network device, wherein the background area 414 can be displayed in different colors) between the first network element and the second network element (see e.g., Fig. 8B and col. 10, lines 59 – 67; i.e., background area 414 represents the status of a communication channel, wherein each individual device icon represented in Fig. 8B comprises a background area 414, which corresponds to the communication channel status of multifunction icon 342 and 340).

As to **dependent claim 10**, this claim is analyzed with respect to claim 9 as previously discussed above. Dev et al. teaches a GUI (user interface 10 – see e.g., col. 3, lines 52 – 54), comprising: a plurality of network element objects (see e.g., Fig. 8A and col. 5, lines 29 – 31; i.e., the plurality of network elements include bridges, routers, hubs, and cables), a first color representing a cross-connection (see e.g., col. 14, lines 56 – 58; i.e., the status of the network device can be represented in different colors, wherein the status corresponds to the network device's connection state with other network devices) locally

(see e.g., col. 5, lines 35 – 37; i.e., the topographical model representing the network devices is associated with a local area network) in a management system database (see e.g., col. 3, lines 66 – 67, and col. 4, lines 1 – 2; i.e., database manager manages storage and retrieval of configuration data, even logs, statistics, history, and current state information), but does not specifically teach the first color represents a cross-connection not yet set to a network element. Tonelli et al. teaches a cross-connection not yet set to a network element (col. 9, lines 10 – 12; i.e., the cross-connection not yet set to a network device corresponds to the user being able to drag a connection to a target device), wherein the connection line comprises a first color first color (see e.g., col. 17, lines 46 – 48; i.e., the user is able to select a Customize Media option 388 to modify the current color of a line media, wherein those skilled in the art will appreciate that the connection line must have a predetermined first color before being connected to a device within the GUI in order for the user to visually identify the connector). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the GUI, a plurality of network element objects, a first color representing a cross-connection, locally in a management system database of Dev et al. with the first color representing a cross-connection not yet set to a network element of Tonelli et al. because the user is given an option to select a menu to view or modify the current media line colors and patterns (see e.g., col. 17, lines 46 – 48; i.e., the menu allows the user to select or modify a line color, which further assists the user to visually identify the connection between devices).

As to **dependent claim 11**, this claim is analyzed with respect to claim 10 as previously discussed above. Dev et al. teaches a GUI (user interface 10 – see e.g., col. 3, lines 52 – 54), a plurality of network element objects (see e.g., Fig. 8A and col. 5, lines 29 – 31), a first color representing a cross-connection (see e.g., col. 14, lines 56 – 58) locally (see e.g., col. 5, lines 35 – 37) in a management system database (see e.g., col. 3, lines 66 – 67, and col. 4, lines 1 – 2), but does not specifically mention the first color is a

predetermined set color. However, in the same field of endeavor, Tonelli et al. teaches the first connection is a predetermined color (i.e., black), wherein the first color can be modified to a desired users choice (see e.g., col. 17, lines 46 – 48; i.e., the user is able to select a Customize Media option 388 to modify the current color of a line media, wherein those skilled in the art will appreciate that the connection line must have a predetermined first color before being connected to a device within the GUI in order for the user to visually identify the connector, such as the color black). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the GUI, a plurality of network element objects, a first color representing a cross-connection, locally in a management system database of Dev et al. with the first color representing a cross-connection not yet set to a network element of Tonelli et al. because the user is given an option to select a menu to view or modify the current media line colors and patterns (see e.g., col. 17, lines 46 – 48; i.e., the menu allows the user to select or modify a line color, which further assists the user to visually identify the connection between devices).

8. **Claims 12, 13, 18, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dev et al. (Patent No. 5,559,955) in view of Tonelli et al. (Patent No. 5,831,610), and further in view of Mayo et al. (Patent No. 5,751,965).**

As to **dependent claim 12,** this claim is analyzed with respect to claim 9 as previously discussed above. Dev et al. teaches a GUI (user interface 10 – see e.g., col. 3, lines 52 – 54), a plurality of network element objects (see e.g., Fig. 8A and col. 5, lines 29 – 31), a first color representing a cross-connection (see e.g., col. 14, lines 56 – 58) locally (see e.g., col. 5, lines 35 – 37) in a management system database (see e.g., col. 3, lines 66 – 67, and col. 4, lines 1 – 2). Tonelli et al. teaches a cross-connection not yet set to a network element (col. 9, lines 10 – 12), wherein the connection line comprises a first color first color (see e.g., col. 17, lines 46 – 48). Both Dev et al. and Tonelli et al. do not

specifically mention a second color representing an active connection. However, in the same field of endeavor, Mayo et al. teaches a second color representing an active connection (see e.g., Fig. 6 and col. 6, lines 60 – 65; i.e., five condition for connections are depicted as good, bad, unknown, disabled, and unreachable, wherein good represents an active connection). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the GUI, a plurality of network element objects, a first color representing a cross-connection, locally in a management system database of Dev et al. as modified by the first color representing a cross-connection not yet set to a network element of Tonelli et al. with the second color representing an active connection of Mayo et al. because representing a connection line having a color which the user may easily associate with a particular condition will allow the user immediately and intuitively understand the condition of a network without performing further inquiries (see e.g., col. 7, lines 36 – 50).

As to **dependent claim 13**, this claim is analyzed with respect to claim 12 as previously discussed above. Both Dev et al. and Tonelli et al. do not specifically mention the second color is green. However, in the same field of endeavor, Mayo et al. teaches a second color is green (see e.g., Fig. 6 and col. 7, lines 36 – 50). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the GUI, a plurality of network element objects, a first color representing a cross-connection, locally in a management system database of Dev et al. as modified by the first color representing a cross-connection not yet set to a network element of Tonelli et al. with the second color representing an active connection of Mayo et al. because representing a connection line having a color which the user may easily associate with a particular condition will allow the user immediately and intuitively understand the condition of a network without performing further inquiries (see e.g., col. 7, lines 36 – 50).

As to **dependent claim 18**, this claim is analyzed with respect to claim 9 as previously discussed above. Both Dev et al. and Tonelli et al. do not specifically mention a fifth color representing an improper disconnect state of the communication channel. Mayo et al. teaches a fifth color (see e.g., Fig. 6) representing an improper disconnect of the communication channel (see e.g., col. 7, lines 20 – 29; i.e., the improper disconnect of a communication channel corresponds to a situation that would cause a decrease in data flow between two network devices, such as ports being purposely or accidentally disabled). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the GUI, a plurality of network element objects, a first color representing a cross-connection, locally in a management system database of Dev et al. as modified by the first color representing a cross-connection not yet set to a network element of Tonelli et al. with the fifth color representing an improper disconnect state of the communication channel of Mayo et al. because representing a connection line having a color which the user may easily associate with a particular condition will allow the user immediately and intuitively understand the condition of a network without performing further inquiries (see e.g., col. 7, lines 36 – 50).

As to **dependent claim 19,** this claim is analyzed with respect to claim 18 as previously discussed above. Both Dev et al. and Tonelli et al. do not specifically mention the fifth color is orange. However, in the same field of endeavor, Mayo et al. teaches a fifth color is orange (see e.g., Fig. 6 and col. 7, lines 65 – 67). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the GUI, a plurality of network element objects, a first color representing a cross-connection, locally in a management system database of Dev et al. as modified by the first color representing a cross-connection not yet set to a network element of Tonelli et al. with the fifth color representing an improper disconnect state of the communication channel of Mayo et al. because representing a connection line having a color which the user may easily associate with a particular condition will allow the user immediately and

intuitively understand the condition of a network without performing further inquiries (see e.g., col. 7, lines 36 – 50).

9. **Claims 14 – 17, 20, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dev et al. (Patent No. 5,559,955) in view of Tonelli et al. (Patent No. 5,831,610), in view of Mayo et al. (Patent No. 5,751,965), and further in view of Galou et al. (Patent No. 6,957,263).**

As to **dependent claim 14**, this claim is analyzed with respect to claim 9 as previously discussed above. Dev et al. teaches a GUI (user interface 10 – see e.g., col. 3, lines 52 – 54), a plurality of network element objects (see e.g., Fig. 8A and col. 5, lines 29 – 31), a first color representing a cross-connection (see e.g., col. 14, lines 56 – 58) locally (see e.g., col. 5, lines 35 – 37) in a management system database (see e.g., col. 3, lines 66 – 67, and col. 4, lines 1 – 2). Tonelli et al. teaches a cross-connection not yet set to a network element (col. 9, lines 10 – 12), wherein the connection line comprises a first color (see e.g., col. 17, lines 46 – 48). Both Dev et al. and Tonelli et al. do not specifically mention a third color. However, in the same field of endeavor, Mayo et al. teaches a third color (see e.g., Fig. 6). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the GUI, a plurality of network element objects, a first color representing a cross-connection, locally in a management system database of Dev et al. as modified by the first color representing a cross-connection not yet set to a network element of Tonelli et al. with the third color of Mayo et al. because representing a connection line having a color which the user may easily associate with a particular condition will allow the user immediately and intuitively understand the condition of a network without performing further inquiries (see e.g., col. 7, lines 36 – 50).

Dev et al., Tonelli et al., and Mayo et al. do not specifically mention a pending communication channel. However, in the same field of endeavor, Galou et al teaches a

pending communication channel (see e.g., col. 6, lines 9 – 11; i.e., the two different states for a cross-connection in a network system is pending and active). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the GUI, a plurality of network element objects, a first color representing a cross-connection, locally in a management system database of Dev et al. as modified by the first color representing a cross-connection not yet set to a network element of Tonelli et al. as further modified by the third color of Mayo et al. with the pending communication channel of Galou et al. because the pending connection can be set to activate, wherein the system can be configured to check the connection for errors, and report the status to the user with an error report (see e.g., col. 10, lines 56 – 62).

As to **dependent claim 15**, this claim is analyzed with respect to claim 14 as previously discussed with respect to 15. Dev et al., Tonelli et al., and Galou et al. do not specifically mention the third color is gray. However, in the same field of endeavor, Mayo et al. teaches a third color being grey (see e.g., Fig. 6). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the GUI, a plurality of network element objects, a first color representing a cross-connection, locally in a management system database of Dev et al. as modified by the first color representing a cross-connection not yet set to a network element of Tonelli et al. as further modified by the pending communication channel of Galou et al. with the third color representing a gray color of Mayo et al. because representing a connection line having a color which the user may easily associate with a particular condition will allow the user immediately and intuitively understand the condition of a network without performing further inquiries (see e.g., col. 7, lines 36 – 50).

As to **dependent claim 16**, this claim is analyzed with respect to claim 9 as previously discussed above. Dev et al. teaches a GUI (user interface 10 – see e.g., col. 3, lines 52 – 54), a plurality of network element objects (see e.g., Fig. 8A and col. 5, lines 29 – 31), a

first color representing a cross-connection (see e.g., col. 14, lines 56 – 58) locally (see e.g., col. 5, lines 35 – 37) in a management system database (see e.g., col. 3, lines 66 – 67, and col. 4, lines 1 – 2). Tonelli et al. teaches a cross-connection not yet set to a network element (col. 9, lines 10 – 12), wherein the connection line comprises a first color (see e.g., col. 17, lines 46 – 48). Both Dev et al. and Tonelli et al. do not specifically mention a fourth color. However, in the same field of endeavor, Mayo et al. teaches a fourth color (see e.g., Fig. 6). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the GUI, a plurality of network element objects, a first color representing a cross-connection, locally in a management system database of Dev et al. as modified by the first color representing a cross-connection not yet set to a network element of Tonelli et al. with the fourth color of Mayo et al. because representing a connection line having a color which the user may easily associate with a particular condition will allow the user immediately and intuitively understand the condition of a network without performing further inquiries (see e.g., col. 7, lines 36 – 50).

Dev et al., Tonelli et al., and Mayo et al. do not specifically mention a partial communication channel state. However, in the same field of endeavor, Galou et al teaches a partial communication channel state (see e.g., col. 6, lines 9 – 11; i.e., the two different states for a cross-connection in a network system is partial, pending and active). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the GUI, a plurality of network element objects, a first color representing a cross-connection, locally in a management system database of Dev et al. as modified by the first color representing a cross-connection not yet set to a network element of Tonelli et al. as further modified by the fourth color of Mayo et al. with the partial communication channel state of Galou et al. because the connection can be user activated or deactivated to change the state of the cross connection from a pending or a partial state to an activate state (see e.g., col. 6, lines 56 – 60).

As to **dependent claim 17**, this claim is analyzed with respect to claim 16 as previously discussed. Dev et al., Tonelli et al., and Galou et al. do not specifically mention the fourth color is red. However, in the same field of endeavor, Mayo et al. teaches a fourth color being red (see e.g., Fig. 6). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the GUI, a plurality of network element objects, a first color representing a cross-connection, locally in a management system database of Dev et al. as modified by the first color representing a cross-connection not yet set to a network element of Tonelli et al. as further modified by the partial communication channel state of Galou et al. with the fourth color representing a red color of Mayo et al. because representing a connection line having a color which the user may easily associate with a particular condition will allow the user immediately and intuitively understand the condition of a network without performing further inquiries (see e.g., col. 7, lines 36 – 50).

As to **dependent claim 20,** this claim is analyzed with respect to claim 9 as previously discussed above. Dev et al. teaches a GUI (user interface 10 – see e.g., col. 3, lines 52 – 54), a plurality of network element objects (see e.g., Fig. 8A and col. 5, lines 29 – 31), a first color representing a cross-connection (see e.g., col. 14, lines 56 – 58) locally (see e.g., col. 5, lines 35 – 37) in a management system database (see e.g., col. 3, lines 66 – 67, and col. 4, lines 1 – 2). Tonelli et al. teaches a cross-connection not yet set to a network element (col. 9, lines 10 – 12), wherein the connection line comprises a first color (see e.g., col. 17, lines 46 – 48). Both Dev et al. and Tonelli et al. do not specifically mention a sixth color. However, in the same field of endeavor, Mayo et al. teaches a sixth color (see e.g., Fig. 6). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the GUI, a plurality of network element objects, a first color representing a cross-connection, locally in a management system database of Dev et al. as modified by the first color representing a cross-connection not yet set to a network element of Tonelli et al. with the sixth color of Mayo et

al. because representing a connection line having a color which the user may easily associate with a particular condition will allow the user immediately and intuitively understand the condition of a network without performing further inquiries (see e.g., col. 7, lines 36 – 50).

Dev et al., Tonelli et al., and Mayo et al. do not specifically mention an "intent to delete" state of the communications channel. However, in the same field of endeavor, Galou et al teaches an "intent to delete" state of the communications channel (see e.g., col. 6, lines 59 – 60; i.e., the intent to delete corresponds to delete step 310, wherein any connection can be deleted or detached). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the GUI, a plurality of network element objects, a first color representing a cross-connection, locally in a management system database of Dev et al. as modified by the first color representing a cross-connection not yet set to a network element of Tonelli et al. as further modified by the sixth color of Mayo et al. with the an "intent to delete" state of the communications channel of Galou et al. because the cross connections associated with the connection will be deleted only from the network elements in the connection's route and not form the connection itself (see e.g., col. 15, lines 21 – 30).

As to **dependent claim 21,** this claim is analyzed with respect to claim 20 as previously discussed. Dev et al., Tonelli et al., and Galou et al. do not specifically mention the sixth color is magenta. However, in the same field of endeavor, Mayo et al. teaches a fourth color (see e.g., Fig. 6). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the GUI, a plurality of network element objects, a first color representing a cross-connection, locally in a management system database of Dev et al. as modified by the first color representing a cross-connection not yet set to a network element of Tonelli et al. as further modified by the partial communication channel state of Galou et al. with the sixth color of Mayo et al. because representing a connection line having a color which the user may easily

associate with a particular condition will allow the user immediately and intuitively understand the condition of a network without performing further inquiries (see e.g., col. 7, lines 36 – 50).

It is noted that any citation to specific, pages, columns, lines, or figures in the prior art references and any interpretation of the references should not be considered to be limiting in any way. A reference is relevant for all it contains and may be relied upon for all that it would have reasonably suggested to one having ordinary skill in the art. In re *Heck*, 699 F.2d 1331, 1332-33,216 USPQ 1038, 1039 (Fed. Cir. 1983) (quoting In re *Lemelson*, 397 F.2d 1006,1009, 158 USPQ 275, 277 (CCPA 1968)).

Response to Arguments

10. Applicant's arguments filed 08/29/2007 have been fully considered but they are not persuasive.

Applicant's argument that Pugaczewski does not teach manipulating images to form a graphical representation of a circuit being provisioned

Applicant argues that Pugaczewski does not teach a process of the user manipulating images such as network element objects to form a graphical representation because the applicant interprets the teachings as only allowing a user to make a selection of two end points and the system performs the provisioning (See Arguments page 8, Top).

The Examiner disagrees.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., manipulating image to form a graphical representation of the circuit) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). In this case, the Applicant has chosen to argue limitation C and thus limitations A & B will not be discussed. In limitation C, the claim reads as follows:

(c) Graphically representing the status of cross-connection links within said network elements as an icon displayed on each of said linked network element objects;
wherein said network element objects and bridge objects may be manipulated by a user to form a graphical representation of the circuit being provisioned.

The Examiner interprets the graphical interface of Pugaczewski as providing several configuration screens (including provisioning) that provide the structure to clearly show cross connect links as an icon that are displayed linked to network elements. First, Pugaczewski teaches the user selects (514) to bring up the network-provisioning tool. Then the **user** can select the ISP provider and endpoint (540 and 542). In response to the input the interface clearly shows a graphical representation of to connections on the network. Pugaczewski expressly teaches that the interface icon represents a cloud of nodes managed by a vendors network manager. By selecting the icon the user can see the element layer for each node that shows the cross connections (See column 9, lines 40-67). Pugaczewski teaches the purpose of the interface is to show the network at different layers of abstraction. In the network management layer (See figure 25), Pugaczewski expressly shows Icons that represent physical devices interconnected between the end user and the ISP. Therefore, the second element of the above claim that allow for the network element objects to be manipulated by the user to form a graphical representation, is interpreted in Pugaczewski, as the process by which the user can manipulate the provisioning tool to and select the Icon representing the cloud and then proceed to process of moving a connection around. Pugaczewski teaches the vendors are required to provide well defined interfaces in the element layer so that the applications can work with the higher layers that allow the user to move the connections around. Therefore, the customer has the ability to remotely provision a network (See column 23, lines 19-30) from with the interface. The Examiner notes that the claim does not specifically state manipulating an image as the applicant argues but does mention manipulating a network element object represented by an Icon. If the user can manipulate the connection by selecting an icon then the system will show the reflected change as the new connection would now connect through different components (See

figure 25) and would reflect a change the provisioning made by the user and the end graphical representation would reflect the change.

Applicants arguments for claims 6-9

Applicant lists the heading in the argument as claims 6-9, but provides the summary as the rejection of showing claims 1-3, 5-9 as rejected under 35 USC 102(b) as being anticipated by Dev. However, in the previous office action, claims 1-3, and 5 were rejected over Pugaczewski and claims 6-9 were rejected over Dev, as properly captured on page 5 of the arguments. Therefore, it is believed that the arguments are presented to cover claims 6-9 in spite of the heading (See arguments page 9, Middle). In response to Applicant's arguments with respect to claims 6-9, the arguments have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven B. Theriault whose telephone number is (571) 272-5867. The examiner can normally be reached on M, W, F 10:00AM - 8:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Weilun Lo can be reached on (571) 272-4847. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Steven B Theriault/
Patent Examiner
Art Unit 2179